

Vermont EMS Today

From the Director

The ECA of the Future: Some Important Choices

The Emergency Care Attendant (ECA) certification and training level has been a stone in the foundation in the Vermont EMS system for many years. The level was originally created as a way for local squads to recruit new candidates into the ranks of EMS providers at the community level. The length of training is relatively modest, in the 60-70 hour range. The cost of delivering a course leading to ECA certification is low enough to be affordable by most squads and individuals. The only requirements for course approval are: 1) An EMT to function as the Instructor/Coordinator and, 2) EMS District Board and Medical Advisor

Inside:
Medical Advisor2
Training Update4
A Tribute 6
A Community Grieves7
How Well Do Evaluators Evaluate? 8
Home Heating Safety 10
Emergency Nurses Assoc11

support. I think most EMS leaders agree that Vermont's ECA program has fulfilled its original intent, especially for our smaller and more rural ambulance and first responder services.

Many of the current EMTs trained in Vermont started out as ECAs. Typically a person would take the training leading to ECA certification at a local level and get

involved with a squad. After a year or so of active participation, many ECAs chose to take the next available EMT course in their area. As a group, Vermont EMT candidates have done well on the National Registry of EMTs examination. A likely explanation for our state's

success is that many Vermont candidates for the exam actually have two formal training programs under their belt and commonly a year or so of actual field experience by the time they take the test.

It is important to understand the different intended purposes of the two basic level EMS curricula that have a role in the choices we make about the future of our ECA level. The National Standard EMT-B curriculum is specifically designed as the entry level of training for response to emergency

September 1998



medical calls. The National Standard First Responder curriculum is targeted at people such as lifeguards, athletic coaches and others with jobs that may require some occasional provision of emergency care.

The current Vermont curriculum for preparing ECAs is founded on the old National Standard First Responder

curriculum which used a diagnosis based approach to patient care. Since the EMT-B curriculum was updated in 1994 and shortly afterwards a new National Standard First Responder curriculum was released, both of these curricula now use an assessment based approach. This

creates the following problems:

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current EMTs

trained in

Vermont started

out as ECAs.

- ECAs trained according to our current curriculum are learning an outdated approach to patient care that EMTs are no longer taught. Even worse, they must unlearn it if they go on to take EMT-B training.
- As a practical matter, it is no longer possible to get textbooks, audio visual aids, or other educational support materials for the old curriculum.

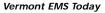
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From The Medical Advisor

The Hot Air of ABC's

just love it when new products come on the market and salespeople come to tell me the latest and greatest things they have, all shiny and pretty, to revolutionize the care we deliver. A snake-oil salesman and friends with a transport ventilator recently came calling—perhaps you've met them.

These are the folks who want to assure you that if you aren't using their device, you are doing a bad job. They cite the "literature" as supporting their position and have a little, nifty device to



is published quarterly as a service for Vermont's emergency medical providers. Suggestions, comments and news items are always welcome. Write or call Leo J. Grenon, Vermont Dept. of Health, 108 Cherry Street, Box 70, Burlington, VT 05402. (802) 863-7310 or 1-800-244-0911 (in Vermont only). Email: VTEMS@VDH.STATE.VT.US

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show how bad a job you do at ventilation and how great their expensive device is.

By way of emphasizing

Bag-valve-mask

(BVM) ventilation,

as the "fall-back" and

"gold standard" is still

necessary to master.

how potentially far behind we are in EMS, they cite the

Boy Scouts of America as already having these things and using them. I was a

Boy Scout and they are great! But when did they become the measure for EMS practice?

Some already known areas of concern were re-identified in our present method of airway management and ventilation. It is certainly the case that bag-valve-mask (BVM) ventilation, as the "fall-back" and "gold standard," is still necessary to master and difficult to do. There is no argument but that it is all too easy to either under, or over ventilate the patient using this technique. In addition, the peak flow pressure (the

force with which we squeeze the bag), tidal volume (amount of the bag squeezed) and rate of

ventilation are frequently incorrect. But the new device does not necessarily fix these.

Beyond these important areas, there

was little substance to the sales pitch. While these ventilators may be helpful, they are clearly, at best, adjunctive. I walked away determined to brush up my BVM ventilation skills and suggest that you might want to do the same.

When the smoke and mirrors were put away, the simple truth about the ABC's is that they are still the ABC's. It is important that we move the proper amount of air with the proper seal, rate and force as we ventilate. Hot air is most useful if the patient is hypothermic.

—Wayne J.A. Misselbeck, M.D. Medical Advisor

Number of Providers Trained in 1994 EMT-B Curriculum as of 4/1/98

	Fiscal 1996	Fiscal 1997	Fiscal 1998	Total	Grand Total
EMTs who have completed 1994 EMT-B course	37	222	270	529	
EMTs who have completed EMT-B transition course	173	729	322	1224	1753
Number of transition courses	10	49	20	79	

From the Director—

The ECA of the Future

CONTINUED FROM PAGE 1

Some of the ECA program's strengths are also its greatest weaknesses:

- Any EMT can be approved to teach the program. Those who teach courses leading to ECA certification have widely varying qualifications to deliver the course. This leads to tremendous variation in the quality of individual programs and the abilities of their course graduates.
- Since the instructor handles all testing for ECA certification, without state involvement, the exam cannot be secured and several cases of exam misuse or abuse have occurred over the years.

What are the options for updating the Vermont ECA? There are many and about the only absolutely unacceptable one seems to be leaving the program as it is now.

The following are options under consideration. No decisions have been made. They are presented here as a starting point for further discussion only! Please read this statement again.

Option 1: Replace the existing Vermont curriculum for training ECAs with the new National Standard First Responder curriculum.

Pros: The curriculum is widely available. There are several texts in publication and packages of other educational support materials. If the curriculum were adopted "as is," no adaptations would be required. The course is deliverable in about 40 hours. This curriculum was designed so that it could be "bridged" to the EMT-Basic course and would ultimately reduce the total training time to become an EMT-Basic.

Cons: The course does not include some of the skills that many people view as essential for an entry-level EMS provider. The curriculum does not include oxygen administration, vital signs, splinting, and several two-person skills such as spinal immobilization. The curriculum does include CPR with a pocket mask, hemorrhage control, manual stabilization of skeletal injuries and emergency childbirth. The question has been raised as to whether a person

trained to this level would be an acceptable second person on a two-person ambulance crew.

Option 2: Adopt the new National Standard First Responder Curriculum as the foundation for future ECAs, but add essential skills and knowledge for entry level EMS work.

Pros: This option sounds very appealing as it is the combination of easy entry with real capability to do the job.

Cons: It is difficult to know exactly where to draw the line with "essential entry level skills." Every time I ask someone to sit down and describe the essential entry level skills for an EMS worker are, they come very close to describing an EMT. Also, each addition of knowledge or skill training to the course increases the length and the complexity of course delivery. With a course that includes a mix of First Responder and EMT-B skills, text and support material selection also become issues.

Option 3: Adopt the new National Standard First Responder Curriculum as the foundation for future ECAs. Leave ECA as the acceptable level responder for a first response service but require two EMTs on all ambulance calls.

Pros: This would assure that all ambulances have at least two crew members capable of performing procedures that require two skilled persons. Ambulance services could still recruit people using the ECA level, but those individuals would have to function as third or fourth members unless or until they became EMTs. First Responder services would still be able to respond with only one person trained to the new ECA level.

Cons: Some ambulance services around the state may have difficulties complying with the January 1, 2000 requirement for at least one EMT-B on every call. This requirement would be even more difficult for them. Even Vermont ambulance services that are

This curriculum was designed so that it could be "bridged" to the EMT-Basic course...

capable of supplying one EMT-B might find it difficult to assure the availability of two.

RELATED QUESTIONS: What happens to current ECAs? The likely answer

is that they will be "grandfathered" under current requirements.

What do EMS District Medical Advisors want for future ECAs? This question needs more discussion. The Medical Advisors play a crucial role in the delivery of both basic and advanced emergency care through the provision of medical direction. Ultimately, our system is designed so that all levels of EMS providers deliver the treatments that emergency physicians want for their patients.

What about automated defibrillation at the ECA level? An interesting variation/combination of Option 1 and Option 2 would be to include automated defibrillation as an addition to the National Standard First Responder Curriculum. This would mean that all EMS personnel trained in the future would be prepared to use a defibrillator.

What can be done to assure consistency and quality in the ECA program of the future? This issue requires a careful balancing act between allowing enough flexibility to assure easy course delivery while at the same time making sure those who teach courses are really qualified and prepared to do so. At a minimum, we will have an orientation program to prepare potential instructors of any future curriculum.

Over the next couple of months, I would like to continue to refine our thinking about the options described and any others that may be appropriate. Feel free to brainstorm, talk, debate, and write. I am happy to hear from any of you. Ultimately we will need to develop some type of implementation plan that will include a time line and specific steps for bringing our ECA program into the next century.

—Dan Manz, EMS Director



he state's fiscal year ended June 30, providing us with an opportunity to look at what happened in training and education during fiscal year 1998:

Implementation of 1997 EMS Rule Changes

The numerous revisions in Vermont's EMS Rules led to a number of changes in certification and testing:

- ☐ EMTs received cards that expired in two years rather than one.
- ☐ EMT-Intermediates received cards that expired at the same time as their EMT-B certifications.
- ☐ Despite many rumors to the contrary, there were no changes in the first responder curriculum Vermont uses for ECA certification; those changes will come in fiscal year 1999.
- ☐ Students were allowed three attempts on both written and practical certification exams, one more attempt than had been allowed previously.
- Approved EMT-B national standard refresher courses took place for the first time, using the national standard curriculum.
- ☐ A new written recertification exam based on the EMT-B national standard refresher curriculum was pilot tested along with a new practical recertification exam.

- ☐ An EMT-B whose certification lapsed for less than one year could get reinstated simply by completing the recertification requirements that were due previously. EMTs no longer have to gain additional continuing education (CE). The new card, however, expires two years from the last one.
- ☐ The Department of Health sent to all district medical advisors, district chairs and district training coordinators a list of EMTs who were certified at the manual defibrillation level when the revised EMS Rules went into effect. These EMTs may continue to defibrillate manually as long as they maintain continuous EMT-Intermediate certification, remain affiliated with a service that was licensed at the manual defibrillation level or above, follow the approved protocol and meet any requirements of the district medical advisor.
- ☐ Vermont allowed a currently Nationally Registered EMT-B from another state to get EMT certification here for up to two years rather than one. New Hampshire EMTs who maintain National Registry cards found recertification significantly easier because Vermont now recognized that card as evidence of having fulfilled equivalent CE and testing requirements.
- ☐ Vermont EMS also gained modem access to the National Registry's database, shortening the time needed to verify National Registry creden-

tials and so speeding up reciprocity applications from Nationally Registered EMT-Bs.

Continuing Education

Once again, more than 700 people attended the Vermont EMS conference this spring. The tenth annual conference saw the return of a number of our most popular speakers from past conferences, as well as some new faces. The popularity of pre-conference workshops continued to grow, with some sessions unable to accept all of the people who wished to attend. EMS Office staff also provided continuing education through hazardous materials seminars, opening night of EMT courses and other presentations to EMS providers.

Implementation of 1994 EMT-Basic Curriculum

Twenty EMT-B transition courses brought the total number of EMTs who have completed a transition course to 1,224. Now that 529 students have completed EMT-Basic courses, the total number of EMTs qualified to use the interventions in the 1994 curriculum is 1,753. This is more than 90 percent of all Vermont EMTs (see the table on page 9). The EMS Office sent all district medical advisors, district chairs and district training coordinators lists of EMTs who have completed the EMT-B course or EMT-B transition course.

	1993	1994	1995	1996	1997	1998
Basic	14	16	17	10	16	17
Intermediate	11	12	12	14	7	10
Totals	25	28	28	24	23	27

Courses

Thirty-eight first responder courses took place this year, about three-fourths as many as last year. One of the reasons for the smaller number of courses was the decision of one very busy district not to approve any more first responder courses until the curriculum was revised to be compatible with the material and assessment-based approach of the EMT-B curriculum. Turnaround time for approvals by the EMS office (once the application was complete) was timely; 97 percent of courses were approved within two weeks, the time instructors have to submit the course application before it starts. More than a quarter of the courses were approved on the same day the applications were complete.

The number of EMT-Basic courses stayed about the same as last year, although there was an increase in the number of EMT-Intermediate courses. (See above.)

Approvals for EMT courses were also tracked. Eighty-five percent of course applications were approved within two weeks of being complete. More than a third of the courses were approved on the same day the applications were complete.

Four EMT-B bridge courses took place in different areas of the state. Because the students entering these courses had to be ECAs, the course coordinators were able to shorten the course a little bit.

The Department of Health also approved two EMT-B refresher courses for the first time.

Certification Examinations

Every EMT who was due to take the test for recertification received a reminder and an exam registration form in the mail. With the cooperation of district officials, course instructors and EMTs, the number of times EMS office staff traveled to conduct EMT certification exams remained manageable. (See below.)

Instructor Development

Another instructor update took place in December, qualifying nine more EMTs to coordinate transition courses. Preparations also began for certifying instructor-coordinators (ICs). Plans were made for at least three EMS Instructor courses in fiscal year 99. Vermont EMS developed and sent to each district chair, district training coordinator and active instructor a Manual for Course Coordinators of EMT-Basic, EMT-Basic Refresher and EMT-Intermediate Courses.

Intubation

The pilot intubation program for EMT-Intermediates in District 3 (the Chittenden county area) and District 7 (the Addison county area) continues, as does the program in District 9 (the White River Junction area).

—Mike O'Keefe Training Coordinator

Year	1992	1993	1994	1995	1996	1997	1998
Exam Trips	60	28	24	29	29	33	31

MARK YOUR CALENDAR! 1999 EMS Conference APRIL 9, 10, & 11, 1999



A Tribute to a Fallen Companion

ew of us stop and pause to consider the potential dangers of our jobs as emergency service providers. When the call comes we simply act and respond each time driven by our deep commitment to the people we serve.

Eugene McDonough was such a person. He tirelessly responded to fire and emergency medical calls in St. Johnsbury for 19 years. He first completed his EMS training in 1987, becoming one of the first few certified Emergency Care Attendants in Vermont. He then went on to complete his EMT certification in May, 1992. At age 54, Eugene McDonough had spent 19

years on the St. Johnsbury Fire Department, first as a call firefighter and then as a career firefighter.

On the morning of Saturday, September 5th, he responded mutual aid to Lyndonville for a warehouse fire. While attempting to gain entry to one side of the building, a brick wall collapsed without warning and landed on top of him.

"It happened in a heartbeat and was over in a heart beat," said St. Johnsbury Fire Chief Troy Ruggles. Other firefighters narrowly escaped the collapsing structure. Later that week, hundreds of firefighters, police and EMS personnel turned out to pay tribute to a fellow emergency service professional. Many of those who attended

McDonough's funeral did not know him personally, but felt an allegiance to him through a common profession. It is clear through the words of others that he tirelessly committed himself to fellow firefighters and his community.

In addition to his commitment to emergency services, Eugene McDonough gave in other ways. He started a statewide bone marrow donation program and volunteered at the local library. On April 10th, 1999 the legacy of Eugene McDonough will be honored at the Vermont EMS conference with the presentation of the Emergency Medical Services Life Service Memorial.

-Rob Schell, Senior Field Specialist



A saddened community attends a fallen comrade's funeral.

A Community Grieves

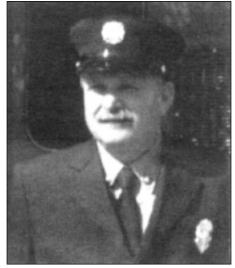
s I was preparing myself for the funeral service of Firefighter Eugene McDonough, I glanced outside my window through the drizzling rain and watched in sorrow as the St. Johnsbury Firefighters somberly marched down Winter Street making their way to their fallen comrade.

Realizing the procession would begin soon, I walked over to stand on Main Street to join my community in paying tribute to this brave man who gave his life protecting our property.

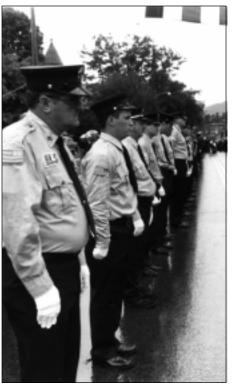
I watched our townspeople gather as the rain fluctuated between sprinkling and a steady downpour. It seemed appropriate for the day; no one seemed to mind. As the time drew near, you would have never known by listening that the crowd was accumulating by the hundreds. There was only silence as we waited Gene's final arrival.

I had the pleasure of speaking with an elderly woman who stood alongside me. Her words were simple and her message clear — Gene was a rare breed in these days when commitment and bravery seem a thing of the past. Her hopes and prayers were that the youth of today would appreciate and respect what Gene stood and died for, and that they could learn from it. I hope her prayers are answered.

The silent emotion of the procession was heart wrenching. I could feel everyone's pain as if it were all my own. But I could also feel everyone's pride. Pride for Eugene McDonough. Hundreds of firefighters, EMS personnel, and police officers took their place lining



Eugene McDonough, SJFD.



A lost friend is mourned.

Main Street. I saw many faces I recognized, even more I did not. It made me realize what a special man we had lost. The faces were enveloped in sadness, but their heads were held high with the utmost respect and admiration.

I watched with unspoken gratitude as the Boston Fire Department personnel orchestrated the procession, they tirelessly took the burden off our overwhelmed fire fighters, and made sure that Gene's passing was acknowledged in the right way. I discovered by talking with various firefighters the strength of the bond between them. Once you have become a fire fighter, you have become a member of every fire department in every community around the globe. If only the rest of the world could be the same way, what a wonderful thing that would be.

We gathered in the church, taking our seats in silence. I could feel the love each speaker held in their hearts for Gene. I could hear it in their voices and see it etched on their faces. Firefighter McDonough paid the ultimate price for his dedication, but we have to take solace in the thought that he died the only way he would have wanted.

After the service, we continued to the firehouse for Gene's last alarm. I felt proud to be part of a community and state that cares so much about their own. And, I felt even prouder of the St. Johnsbury Fire Department for the dignity they displayed in such a difficult time.

It was said at the service that we could take comfort in the fact that Firefighter Eugene McDonough is now in the company of some of the greatest firefighters of all times. And now content, standing tall and proud, he is watching from above.

—Tina Wood, St. Johnsbury

How Well Do Evaluators Evaluate?

he January/March 1998 issue of *Prehospital Emergency Care* included a paper titled "Evaluating the Evaluators: Interrater Reliability on EMT Licensing Examinations." This topic is one that has not been addressed very often or very scientifically in EMS. Nonetheless, it is a question that deserves our attention if we are to assure the public that EMS providers have the requisite skills and if we are to assure EMS providers that their practical examinations are fair, accurate and reliable.

Unfortunately, this paper does not tell us how well evaluators do their job. There are so many errors in simple addition that the accuracy of the paper's other statistics must be questioned. The authors define a statistic for evaluator agreement in a way that makes it appear the evaluators disagreed more often than they actually did. They misuse statistics to find a difference that does not actually exist. They also make unjustified assertions regarding the value of evaluator workshops.

The authors began with good intentions. Shortly after Michigan began using a new practical examination for EMTs, the authors became concerned about whether evaluators were evaluating candidates consistently with this new exam. To look at this issue, they developed two videotapes of simulated candidates at the patient assessment station. They designed the first videotape to show a passing performance and the second to show a failing performance. After showing each tape to 104 Michigan licensed instructor-coordinators (ICs) at an IC conference, they asked the participants to complete the Michigan EMT assessment score sheet. The evaluation instrument calls for the evaluator to judge candidate performance on 45 different criteria. Proper completion of the score sheet requires the evaluator to award between one and eight points for each criterion according to certain rules.

The investigators also collected information about the ICs, including: level of licensure, level of education; years of EMS provider experience; years

of IC experience; whether the IC had completed an examination evaluator workshop; whether the IC was an evaluator for the National Registry of EMTs exam; whether the IC participated in other "skill enrichment programs" such as advanced cardiac life support (ACLS); geographic region; and status as a member of the Michigan IC Society. The score sheet does not ask for the evaluator's opinion as to whether a candidate passed the station, but the authors asked the ICs for their subjective judgment in this regard.

The investigators then computed the mean (average) score, 95 percent confidence interval, standard deviation and median (fiftieth percentile) score. Score sheets that were substantially incomplete or incorrectly completed were not included in these computations. They were, however, included in a separate analysis of how well the evaluators completed the score sheets.

The authors used analysis of variance to test for differences in mean scores based on the demographic information collected on the ICs. They also devised a statistic to determine level of evaluator agreement.

The overwhelming majority of ICs (94 percent for the passing scenario and 89 percent for the failing scenario) completed the score sheets well enough for data analysis. The participants had varying levels of formal education. They averaged 14

years of experience as EMS providers and six years of experience as ICs.

The average score for the passing scenario was 86.4 percent. Nine percent documented a failing performance; the other 91 percent documented a passing performance. There was no statistically significant difference in scores when ICs were classified by education, licensure level, region, evaluator workshop completion, IC Society membership or NREMT evaluator status. ICs who were involved with skill enrichment programs awarded about three points more than ICs who were not involved.

The average score for the failing scenario was 60.9 percent. Eighty-two percent documented a failing performance; the other 18 percent documented a passing performance. There was no statistically significant difference in scores when ICs were classified by education, licensure level, region, evaluator workshop completion, IC Society membership, NREMT evaluator status or involvement with skill enrichment programs.

Using the formula

Evaluator agreement =

Actual agreement Possible agreement

I here was no

statistically

significant

difference in

scores...

[total agreements – total disagreements]
[(# of variables) (# of respondents)]

the investigators calculated evaluator agreement for the passing scenario as 79.4 percent. Evaluator agreement for the failing scenario was reported to be 67.8 percent. The values of this statistic can range from zero percent to 100 percent.

Approximately one-third of the ICs

did not complete the score sheets properly. There was no significant difference in the proportion of ICs completing the form properly when trained evaluators were compared to untrained evaluators.

In the discussion section of their paper, the authors

state, "Michigan evaluators currently do not reliably rate candidate performance on the practical examination." In their discussion of why they believe this might be so, they identify two major sources of variability: the rating system and the person using the rating system (the rater).

The authors identify two potential problems among raters: bias because of difference in opinion regarding which skills are considered essential and disagreement about what is required for an adequate performance.

The authors make an excellent point in mentioning the number of criteria the

evaluators had to judge. They cite evidence that as the number of criteria increases, the reliability of the exam decreases. The score sheet's 45 different items, therefore, present a significant obstacle to consistency in scoring.

When interpreting this paper, the reader must take into consideration several limitations which the authors admit. The scenario was videotaped, preventing the evaluator from moving around to get a better view and eliminating the possibility of talking to the simulated patient afterward to clarify a candidate's actions. Additionally, the score sheet was part of a new (less than one year old) practical exam, so lack of evaluator familiarity may have played a role in the high error rate and disappointing rate of agreement.

There are also a number of problems with this paper that the authors do not address. The numbers in the paper do not add up — literally. The authors provide the raw data on agreement for trained and untrained evaluators. Unfortunately, the totals reported in the paper do not equal the totals when the values are entered into a calculator or a spreadsheet. Part of this may be because in one table some values are missing. At least one other value has to be incorrect because it does not meet the criteria set by the investigators. Even taking those factors into account, the totals in the other table (with complete data) are wrong.

The authors define an unconventional statistic to measure evaluator agreement. There is no explanation as to why the authors chose this instead of an accepted statistic for interrater reliability. Additionally, when the evaluator agreement percentages are calculated based on the raw data provided in the paper, the percentages are different from those listed in the paper. The difference in scores between the trained and untrained evaluators is actually smaller than claimed in the paper. Using the incomplete data provided, the evaluator agreement for the passing and failing scenarios should be 79.6 percent and 73.7 percent, not 79.4 percent and 67.8 percent.

These percentages are correct only if one accepts the formula in the paper. This formula is suspect, however, because it double counts disagreement, thereby giving the appearance of less agreement than actually exists. Based on the raw data provided, agreement on the passing scenario is actually 89.8% and on the failing scenario is 86.9%, two figures that are considerably closer than the ones in the paper. These figures also meet the minimum acceptable level of 80% that the Michigan EMS Division informally subscribes to.

The authors unfortunately place a great deal of emphasis on the lack of any difference in scores between the trained and untrained evaluators. They even state, "These data also suggest that workshop attendance does not result in

The authors unfortunately place a great deal of emphasis on the lack of any difference in scores between the trained and untrained evaluators.

increased evaluator reliability on the Michigan practical examination, at least as is manifested in less variation in student score." This claim is without basis. The investigators never examined the evaluator reliability of ICs before they took the evaluator workshop, so they have no basis on which to make the claim that there was no improvement. There may have been a significant improvement in scores after the workshop, but we cannot tell because this was not assessed.

Presumably, the Michigan practical examination consists of more than just the assessment station. It is therefore improper for the authors to make a blanket statement regarding the entire practical exam based on just one station, especially considering that assessment is one of the most difficult and technical skills evaluated on a practical exam. We have no data to judge reliability on other stations of this exam. The claim that "workshop attendance does not result in increased evaluator reliability on the Michigan practical examination" is not supported by the results and methods of this study.

A small, but important, point should be noted regarding the title of the study, which refers to "EMT licensing examinations." Since only one station from one state's exam is evaluated, the title would have been more accurate if it had referred only to an EMT licensing examination station.

Another factor to consider in assessing this study is the lack of randomization. ICs were the ones who decided whether they would attend an evaluator workshop. Perhaps the reason the trained evaluators did no better than the untrained evaluators is that the ICs who didn't go to the workshop knew they didn't need to go. Perhaps not, but this paper cannot tell us.

How well do evaluators evaluate? This paper unfortunately cannot tell us. When so many arithmetic errors appear in a paper, the accuracy of its other statistics comes into question. That, combined with the unjustified assertions regarding the value of evaluator workshops, leads the critical reader to discount this paper's conclusions.

What can we learn from this paper? Several things. EMS evaluators sometimes are unable to properly complete a score sheet with 45 criteria when they have little experience with that evaluation instrument. They sometimes disagree when they evaluate patient assessment using that score sheet. Practical examination stations should be validated before they are instituted.

The subject of practical evaluation is one that deserves a great deal more research. This paper raises a number of questions, but leaves them to other investigators to answer.

> —Mike O'Keefe Training Coordinator

Number of people holding Vermont EMS certification as of 3/31/98:

ECA		1045
EMT-Basic	(does not include advanced levels)	1087
EMT-I		823
EMT-P		65
Total EMT	1,975	

Taking Care of Us— **Home Heating Safety**

ften, we in emergency services spend our time helping others and neglect our own. Now that summer is officially over and the nights have begun to cool down, we need to look at our own homes to assure that we do not become victims. The annual fall ritual of starting our home heaters can be plagued with unexpected danger. Something as simple as starting a wood stove, without proper precautions, may destroy your home. Please take a few simple steps to assure your family is safe from fire before using your heaters, wood stoves and fireplaces.

پير

One of the natural events which occurs over the summer, is the encroachment of furniture or other items on the heating vents. Whether you have a hot air or water system, make sure all the vents or radiators are clear of obstructions before starting your heater. Check to be sure all emergency shutoffs and heater controls are working properly. Once the heater is started, check the walls and ceiling and along the chimney. If you find changes like discoloration, soot or the surrounding walls are becoming unusually hot, turn off the heater and contact a qualified heating repair specialist.

Wood stoves and fireplaces are as popular as ever in American homes. Fireplaces not only add to your home heating, but are aesthetically pleasing as well. Wood stoves need to have at least 36" clearance from combustible materials. Radiant heat can, and has caused fire when materials are too close. Have your chimney inspected and cleaned if necessary. This is especially important if your stove has not been used in sometime.

Do not use flammable liquids to start or accelerate the fire. To reduce the amount of creosote buildup in the chimney, burn the stove hot twice a day for about 15-30 minutes. When starting the fireplace, do not use excessive amounts of paper. The roaring fire could ignite creosote in the chimney and cause a chimney fire. Always keep a metal or glass screen in front of the fireplace opening. This will protect you and your belongings from hot embers and sparks. If you are using synthetic logs, follow the manufacturer's direction. Improper use can result in an increase of carbon monoxide released into your home. Keep combustible materials away from your mantel to reduce the possibility of ignition from a spark. Make sure the fire is out before you head off to bed. پر

Never close the fireplace or wood stove damper with hot ashes or coals still burning. A closed damper will cause the fire to heat up again and force toxic amounts of carbon monoxide into your home. Place hot ashes in a metal container and wait for them to cool before disposal. Do not burn coal in your wood stove or fireplace, as it gives off lethal amounts of carbon monoxide as well.

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Kerosene and electric space heaters are another form of home heating. Kerosene and other fuel burning heaters should be only used in rooms with proper ventilation. These heating devices

will build up deadly fumes if not vented properly. Use only the fuel that is recommended by the heater manufacturer and never refill the heater while it is operating. Refueling should be done outdoors as fumes are given off during poring. Also, cool fuel will expand when poured into a hot tank causing spillage of the flammable liquid. Always use a heater that has been UL approved. These heaters will have an emergency shutoff in case it is tipped over.



In general, keep children away from space heaters or any open flame. Hundreds of children are burned each year when loose clothing is ignited. When using an electric heater, make sure that you do not overload the electrical circuit. Try not to use extension cords. But if you have to, use one that is UL approved and has the proper rating to carry the amp load of the heater. Do not use an electric heater in rooms where it might come in contact with water, like a bath or laundry room. With the electric and fuel heater, it is important to have proper placement in the room. Keep them away from walls or other combustible materials.

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Remember, if you believe you have a chimney fire, or your heater is malfunctioning causing smoke buildup in your home, call the fire department. Do not try to play the hero of emergency services and deal with it yourself. Rely on your neighbors as they rely on you.

> —Rich Gaun III Operations Coordinator



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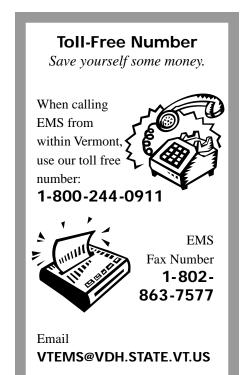
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	EMT-B Refresher Curriculum Topics and Hours	
Division	Material to be covered	Min Hours
Preparatory 	Scene safety, Quality improvement, Health and safety (lifting, carrying, stress management), Medical-Legal	11
Airway	Opening the airway, Suctioning, Artificial ventilation, Airway adjuncts, Oxygen	2
Patient Assessment	Scene size-up, Initial assessment, Focused history and physical examination, Detailed physical exam, Ongoing assessment, Verbal and interpersonal communication, Documentation	3
Medical/Behavioral	General pharmacology, Breathing difficulty, Cardiac emergencies, Altered mental status (including diabetes), Allergic reactions, Poisoning and overdose, Behavioral emergencies	4
Trauma	Shock, Open chest wounds, Open abdominal injuries, Amputations, Burns, Bone and joint injuries, Head and spine injuries, Rapid extrication	4
OB, Infants & Children	Normal delivery, Abnormal deliveries, Medical problems in infants and children, Trauma in children	2
Elective	Topics from EMT-B curriculum	8

Vermont Emergency Medical Services

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